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GTest setup for Windows and Linux



Quick access:

[Windows Setup](#)

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1. What to do for Windows machine

How to install Visual Studio Community 2017 or 2022

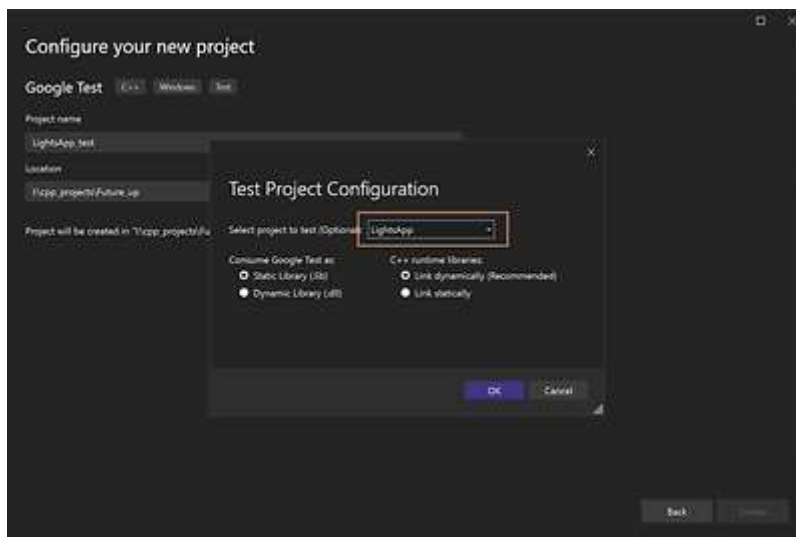
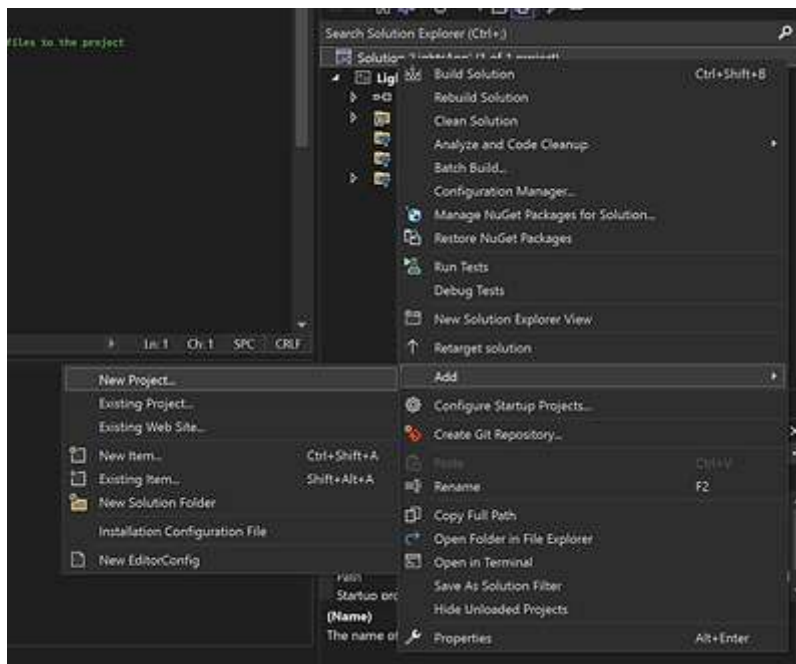
I will be using Visual Studio Community 2017, yet you can choose your preferred version since both supports Google Tests.

Steps:

- i. Go to official site and download the installer. Here is a [link](#)
- ii. Install VS following the instructions from the wizard.

If you want to test your installation, you should:

- i. Create a New -> Project -> Console App and give it a name, such as "LightsApp"
- ii. Right click on the solution Add -> New -> Google Test and give it a name, such as "LightsApp_test"



At this point, you have 2 projects "LightsApp" and "LightsApp_test" where, LightsApp_test references the LightsApp.

Let's create a simple class:

i. Go to LightsApp in the Header Files, create a header and give it a name, such as "Sensor.h"

ii. Include the following code:

```
class Sensor
{
    int value{5};
public:
    int GetSensorValue() const
    {
        return value;
    }
};
```

Let's test this getter:

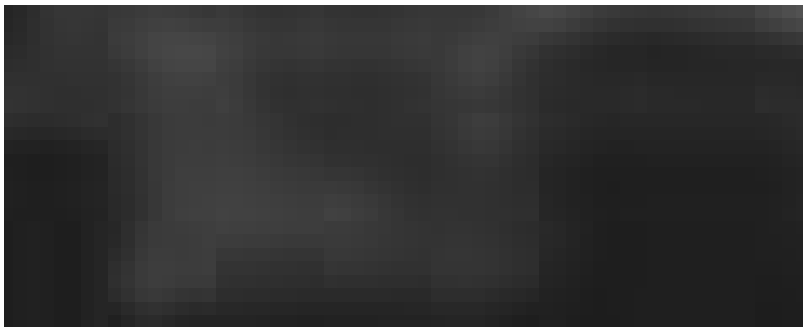
i. In the LightsApp_test, open the test.cpp and include the new header

```
#include "../LightsApp/Sensor.h"
```

ii. Replace existing tests with:

```
TEST(SensorUnitTest, SimpleInteger) {
    Sensor sr;
    EXPECT_EQ(sr.GetSensorValue(), 5);
}
```

iii. In the ribbon menu, Test -> Run all Tests



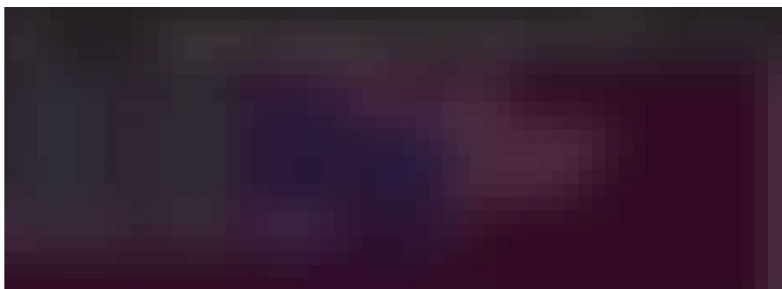
2. What to do for Linux (Ubuntu) machine

How to install Visual Studio Code

Steps:

- i. Download "code" from Ubuntu Software
- ii. Install Bazel library: [Installing Bazel on Ubuntu](#) see **Using Bazel's apt repository**
- iii. Follow [Quickstart: Building with Bazel | GoogleTest](#)

If you want to test your installation, you should:



After the creation of the needed files, open the new folder in VS Code, eg. File -> Open Folder -> LightsApp.

Contents of WORKSPACE file

```
load("@bazel_tools//tools/build_defs/repo:http.bzl", "http_archive")
http_archive(
    name = "com_google_googletest",
    urls =
    ["https://github.com/google/googletest/archive/5ab508a01f9eb089207ee87fd547d290da39d015.zip"],
```

```
strip_prefix = "googletest-5ab508a01f9eb089207ee87fd547d290da39d015",
)
```

Contents of Sensor.h file

```
#ifndef SENSOR_H
#define SENSOR_H

class Sensor
{
    int value{5};
public:
    int GetSensorValue()
    {
        return value;
    }
};

#endif
```

Contents of test.cc file

```
#include <gtest/gtest.h>
#include "Sensor.h"

TEST(SensorUnitTest, SimpleInteger)
{
    Sensor sr;
    EXPECT_EQ(sr.GetSensorValue(), 5);
}
```

Contents of BUILD file

```
cc_library(
    name = "sensor",
    hdrs = ["Sensor.h"],
)

cc_test(
    name = "sensor_test",
    size = "small",
    srcs = ["test.cc"],
    deps = [["@com_google_googletest//:gtest_main", "sensor"],
]
)
```

Run the following command:

